



**Naval Facilities Engineering Command Southwest
BRAC PMO West
San Diego, CA**

**DRAFT
LAND USE CONTROL REMEDIAL DESIGN
PARCEL E**

**HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CA
MAY 2018**

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LAND USE CONTROL REMEDIAL DESIGN
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May 2018

Prepared for:



**Department of the Navy
Base Realignment and Closure
Program Management Office West
San Diego, California**

Prepared by:

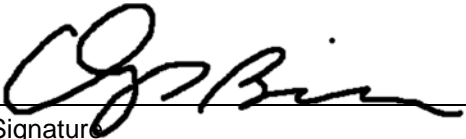


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Land Use Control Remedial Design
Parcel E
Hunters Point Naval Shipyard
San Francisco, California

Submitted by:
Construction Engineering Services, LLC



Signature

May 31, 2018

Date

Doug Bielskis, P.E.

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CERTIFICATION

This document was prepared under the direction and
supervision of a qualified Professional Engineer.



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Acronyms and Abbreviations

| | |
|-------------|--|
| ARIC | area requiring institutional control |
| CDPH | California Department of Public Health |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CES | Construction Engineering Services, LLC |
| CRUP | Covenant to Restrict Use of Property |
| DBR | Design Basis Report |
| DoD | U.S. Department of Defense |
| DTSC | Department of Toxic Substances Control |
| EPA | U.S. Environmental Protection Agency |
| FFA | Federal Facility Agreement |
| HPNS | Hunters Point Naval Shipyard |
| HRA | historical radiological assessment |
| ICs | institutional controls |
| IR | Installation Restoration |
| LUC | Land Use Control |
| MOA | Memorandum of Agreement |
| Navy | Department of the Navy |
| NCP | National Oil and Hazardous Substances Pollution Contingency Plan |
| NRDL | Naval Radiological Defense Laboratory |
| OCII | City and County of San Francisco's Office of Community Investment and Infrastructure |
| OMP | operation and maintenance plan |
| RD | Remedial Design |
| ROD | Record of Decision |
| Triple A | Triple A Machine Shop, Inc. |
| VOC | volatile organic compound |
| Water Board | San Francisco Bay Regional Water Quality Control Board |
| § | Section |

Section 1. Purpose

This Land Use Control (LUC) Remedial Design (RD) documents the institutional controls (ICs) required by Section 2.9.2.3 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Record of Decision (ROD) for Parcel E at Hunters Point Naval Shipyard (HPNS) in San Francisco, California (Department of the Navy [Navy], 2013; Figure 1). The ROD requires implementation of ICs, which are legal and administrative mechanisms for the continued protection of human health and the environment. LUCs, as defined by the U.S. Department of Defense (DoD) (DoD, 2004), are any restriction or administrative action, including engineering controls and ICs, arising from the need to reduce risk to human health and the environment.

As described in the ROD, the selected remedy consists of actions (e.g., excavation and offsite disposal of soil, and in-situ treatment of groundwater) that will remove or treat significant amounts of contamination and actions (e.g., construction of durable covers and subsurface groundwater control barriers) that will contain the remaining contamination and prevent contact through future monitoring, maintenance, and implementation of ICs. The monitoring and maintenance activities will be performed as long as necessary to protect human health and the environment and to comply with the substantive provisions of pertinent state and federal applicable or relevant and appropriate requirements. The long-term monitoring requirements for the final remedy at Parcel E are described in the Remedial Action Monitoring Plan, which is provided under separate cover. The inspection, maintenance, and repair of the constructed remedy at Parcel E are described in the Operation and Maintenance Plan (OMP), which is included in the RD package (Construction Engineering Services, LLC [CES], 2018). This LUC RD Report focuses on the implementation of ICs at Parcel E.

In Parcel E, the objectives of the ICs are to implement land use and activity restrictions that are used to limit the exposure of future landowner(s) or user(s) of the property to hazardous substances present on the property and in groundwater, and to ensure the integrity of the remedial action, including any current or future remedial or monitoring systems such as monitoring wells and subsurface groundwater control barriers. ICs are required on a property where the selected remedial action results in contamination remaining at the property above levels that allow for unlimited use and unrestricted exposure. The ICs for Parcel E will restrict the development, land use, and activities on Parcel E property as described in this LUC RD Report.

After this introductory section, the information in this LUC RD Report is organized as follows:

- [Section 2](#) describes the site, including historical operations at Parcel E.
- [Section 3](#) identifies the area requiring institutional controls (ARIC).
- [Section 4](#) describes the IC performance objectives and associated land use and activity restrictions, and identifies the legal mechanisms that will be used to implement the land use and activity restrictions.
- [Section 5](#) describes the responsibilities of the Navy and the future transferee for implementing IC restrictions.
- [Section 6](#) identifies the process for reviewing documents related to implementation of IC restrictions.
- [Section 7](#) lists the documents and guidance used in preparing this LUC RD Report.

Figures and supporting attachments are presented after [Section 7](#).

This LUC RD Report is a component of the RD for Parcel E, which is a primary document under the HPNS Federal Facility Agreement (FFA). This report was prepared in accordance with the “Navy Principles and Procedures for Specifying Monitoring and Enforcement of Land Use Controls and Other Post-ROD Actions” attached to the January 16, 2004, Department of Defense Memorandum titled “Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Record of Decision (ROD) and Post-ROD Policy” (DoD, 2004).

FFA signatories include the Navy, the U.S. Environmental Protection Agency (EPA), and the California Environmental Protection Agency’s Department of Toxic Substances Control (DTSC) and San Francisco Bay Regional Water Quality Control Board (Water Board). The California Department of Public Health (CDPH) regulates activities related to remediation of radionuclides, thus they are also involved in oversight of actions within the portion of Parcel E that is radiologically impacted¹. All references in this document to CDPH, including but not limited to requirements for approvals and reviews by CDPH, are intended to refer to and apply only within the ARIC for radionuclides (also referred to as the “radiological ARIC”).

The inspections and reporting requirements described in this report will be effective upon issuance of the Final LUC RD Report (which will follow review and approval by the FFA signatories). The IC performance objectives will be achieved through access controls until the time of transfer. The land use and activity restrictions described in this LUC RD Report will be incorporated into the Quitclaim Deed and Covenant to Restrict Use of Property (CRUP) and will take effect upon transfer and issuance of those documents.

¹ As defined in the Historical Radiological Assessment (Naval Sea Systems Command, 2004), radiologically impacted areas have the potential for radiological contamination based on historical information or are known to contain or have contained radiological contamination.

Section 2. Site Description

HPNS is located in southeastern San Francisco on a peninsula that extends east into San Francisco Bay (see [Figure 1](#)). HPNS consists of 853 acres: 407 acres on land and 446 acres under water in the San Francisco Bay. HPNS is divided into nine parcels: B-1, B-2, C, D-1, E, E-2, F, G, and UC-3 ([Figure 1](#)). HPNS also includes Installation Restoration (IR) Sites IR-07 and IR-18, which were formerly part of Parcel B but were not included within the boundaries of Parcels B-1 and B-2 when Parcel B was subdivided in 2014. HPNS formerly contained Parcels A, D-2, UC-1, and UC-2, which included property between Parcels B-1, B-2, C, E, G, and UC-3. Former Parcel A was transferred to the City and County of San Francisco in December 2004. Former Parcels D-2, UC-1, and UC-2 were transferred to the City and County of San Francisco in September 2015.

At each HPNS parcel, contaminated areas were designated as IR sites based on information developed during previous investigations. IR sites were in most cases identified by a two-digit number (e.g., IR-02). Parcel E was established in 1992 by grouping IR sites in the southern portion of HPNS, including IR-01/21 (formerly referred to as the “Industrial Landfill”), IR-02 (referred to as the “Bay Fill Area”), and IR-03 (referred to as the “Former Oily Waste Ponds”). In 1998, Parcel E was expanded to include several additional areas, most notably IR-36 that was formerly located in Parcel D (and includes Building 406). In 2004, IR-01/21 and surrounding areas were designated as Parcel E-2 and separated from Parcel E to facilitate closure of the landfill. In 2005, additional IR sites formerly located in Parcel D (IR-08, IR-38, and IR-39) were added to Parcel E. In 2013, the area along Crisp Road and an adjacent railroad right-of-way (located west of Parcel E-2) were designated as Parcel UC-3 to facilitate closure of a future utility corridor. Parcel E consists of 128 acres of shoreline and lowland coast along the southwestern portion of HPNS, and contains 17 existing buildings, 25 former buildings, 1 ship berth, numerous IR sites, and future reuse areas ([Figure 2](#)).

Historically, most of Parcel E was used as an industrial support area, including a warehouse (Building 406) where chlorinated solvents were released and Former Oily Waste Ponds (known as IR-03) where spent waste oil was stored from 1944 to 1974. Shoreline areas of Parcel E (known as IR-02) were used to store construction materials and industrial materials, as well as to dispose of industrial waste and construction debris. During its occupancy of HPNS (between 1976 and 1986), Triple A allegedly disposed of hazardous wastes at various locations at HPNS, including possibly discharging waste oil within Parcel E using below-ground fuel and steam lines.

Additionally, the National Radiological Defense Laboratory (NRDL) used several buildings within Parcel E during the 1950s and 1960s. A history of Navy radiological operations at HPNS is provided in Volume II of the Historical Radiological Assessment (HRA). The HRA identified areas where low-level radiological material may be located at Parcel E ([Naval Sea Systems Command, 2004](#)). The HRA identified the following radiological operations at Parcel E:

- Dials, gauges, and deck markers painted with radioactive paint (containing low levels of radium-226) to make the devices glow in the dark were disposed of along the shoreline (IR-02 and IR-03).
- The NRDL performed practical and applied research on radiation decontamination methods and on the effects of radiation on living organisms and natural and synthetic materials. NRDL conducted research activities within Parcel E, most notably at the former 500 series buildings in the southwestern portion of Parcel E and within the Building 707 Triangle Area.
- NRDL activities within the former 500 series buildings and the Building 707 Triangle Area may have discharged small amounts of low-level radioactive liquids into sanitary sewer, storm drain, and septic sewer lines; as a result, sanitary sewer, storm drain, and septic sewer lines throughout Parcel E were identified in the HRA as radiologically impacted.

Sandblast waste from cleaning ships used during weapons testing in the South Pacific may have been disposed of at IR-02. [Figure 3](#) identifies the radiologically impacted areas at Parcel E.

Section 3. Area Requiring Institutional Controls

The ARIC is the same as shown on Figure 13 in the Final ROD for Parcel E at HPNS ([Navy, 2013](#)). As shown in [Figure 4](#), the entire area of Parcel E (which consists of about 128 acres) will be subject to IC land use and activity restrictions (hereinafter referred to as “IC restrictions” for brevity) related to nonradioactive chemicals. The land use restrictions apply to IR-02 and IR-03 and other areas designated for open space reuse (see [Figure 2](#)). The activity restrictions related to nonradioactive chemicals include activity restrictions related to soil and associated volatile organic compound (VOC) vapors at specific locations within Parcel E. The FFA signatories may modify the ARIC for VOC vapors, which will initially include all of Parcel E, based on the results of additional soil, vapor, and groundwater sampling and analysis that establishes that areas now included in the ARIC do not pose an unacceptable risk to human health.

All of IR-02 and IR-03, about 44.6 acres, will also be subject to additional activity restrictions related to radionuclides (see area delineated with hatched pattern on [Figure 4](#); this area is also referred to as the “radiological ARIC”). Outside of the radiological ARIC, potential radioactive contamination exceeding remediation goals either (1) has already been removed as part of previous removal actions (see Section 2.5.5 of Design Basis Report [DBR], which is part of the RD package [[CES, 2018](#)], for further information) or (2) would be removed as part of the remedial action, thus these areas would not be subject to activity restrictions regarding exposure to radioactivity.

Section 4. Institutional Control Performance Objectives and Associated Land Use and Activity (IC) Restrictions

The following sections describe the IC performance objectives and associated IC restrictions for Parcel E and the legal mechanisms that will be used to implement the IC restrictions.

4.1. IC PERFORMANCE OBJECTIVES AND ASSOCIATED LAND USE AND ACTIVITY (IC) RESTRICTIONS

IC performance objectives and associated IC restrictions were developed and presented in the ROD and are intended to limit exposure of future users of the property to hazardous substances and to maintain the integrity of the remedy. The following sections present the IC restrictions for Parcel E.

4.1.1. General Activity Restrictions that Apply throughout Parcel E

The following restricted activities throughout Parcel E may only be conducted in accordance with the CRUP, Quitclaim Deed, the LUC RD Report and, if necessary, a Risk Management Plan, and any other work plan or document approved in accordance with these referenced documents:

- a. “Land-disturbing activity,” which includes but is not limited to (1) excavation of soil; (2) construction of roads, utilities, facilities, structures, and appurtenances of any kind; (3) demolition or removal of “hardscape” (for example, concrete roadways, parking lots, foundations, and sidewalks); (4) any other activity that involves movement of soil to the surface from below the surface of the land; and (5) any other activity that causes or facilitates the movement of groundwater known to be contaminated with radionuclides or nonradioactive chemicals. Land-disturbing activities are not intended to include placement of additional clean imported fill on top of the soil cover that the Navy will construct at Parcel E.
- b. Alteration, disturbance, or removal of (i) any component of a response or cleanup action (including but not limited to revetment walls and shoreline protection and soil cap/containment systems); (ii) groundwater extraction, injection, and monitoring wells and associated piping and equipment; or (iii) associated utilities.
- c. Extraction of groundwater and installation of new groundwater wells with the exception of environmental sampling and monitoring requirements as described in the Remedial Action Monitoring Plan for Parcel E.
- d. Removal of or damage to security features of a CERCLA remedy or monitoring device (for example, locks on monitoring wells, survey monuments, fencing, signs, or monitoring equipment and associated pipelines and appurtenances).

In addition, the following activities are prohibited throughout Parcel E:

- a. Growing vegetables, fruits, or any edible items in native soil for human consumption. Plants for human consumption may be grown if they are planted in raised beds (above the CERCLA-approved cover) containing non-native soil. Trees producing edible fruit (including trees producing edible nuts) may also be planted provided they are grown in containers with a bottom that prevents the roots from penetrating the native soil.
- b. Use of or access to groundwater.

4.1.2. Activity Restrictions Related to Soil and Associated VOC Vapors at Specific Locations within Parcel E

Any proposed construction and occupancy of enclosed structures within the ARIC for VOC vapors must be approved by the FFA signatories in accordance with the CRUP, Quitclaim Deed, and LUC RD Report to ensure that the risks of potential exposures to VOC vapors are reduced to acceptable levels that are adequately protective of human health. The ARIC for VOC vapors currently includes the entire ARIC for nonradioactive chemicals (i.e., all Parcel E areas) shown on [Figure 4](#).

After remedial construction, the potential risk may be sufficiently mitigated through site construction and/or building design alternatives that meet the specifications set forth in the ROD, DBR, and LUC RD Report. When construction of enclosed structures or reuse of an existing building is proposed in an ARIC for VOC vapors, the FFA signatories must approve the design of the vapor control system. In addition, enclosed structures within the ARIC for VOC vapors at Parcel E shall not be occupied until the Owner has requested and obtained FFA signatory approval (through approval of a Remedial Action Completion Report or similar document) that any necessary engineering controls or design alternatives have been properly constructed and are operating successfully.

The FFA signatories may modify the ARIC as soil contamination areas and groundwater contaminant plumes that are currently producing unacceptable vapor inhalation risks are reduced over time or in response to further soil, vapor, and groundwater sampling and analysis for VOCs that establishes that areas now included in the ARIC do not pose unacceptable vapor inhalation risks.

4.1.3. Land Use Restrictions for IR-02 and IR-03 and Other Areas Designated for Open Space Reuse

Within the radiological ARIC at Parcel E (i.e., IR-02 and IR-03), the following land uses would be specifically prohibited unless written approval for such uses is granted by the FFA signatories and the CDPH in accordance with the CRUP(s), Quitclaim Deed(s), and LUC RD Report:

- a. A residence, including any mobile home or factory built housing, constructed or installed for use as residential human habitation.
- b. A hospital for humans.
- c. A school for persons under 21 years of age.
- d. A daycare facility for children

In addition, IR-02 and IR-03 would be restricted to open space and recreational uses, unless written approval for other uses is granted by the FFA signatories and CDPH.

The restricted land uses identified above shall also apply to property areas in the Shipyard Shoreline Open Space District, as identified in the City and County of San Francisco's 2010 redevelopment plan for HPNS, unless written approval for such uses is granted by the FFA signatories in accordance with the CRUP(s), Quitclaim Deed(s), and LUC RD Report. Parcel E property areas within the Shipyard Shoreline Open Space District are identified as Redevelopment Blocks EOS-1, EOS-2, EOS-3, EOS-4, EOS-5A, EOS-5B, and EOS-5C ([Figure 2](#)).

Also, IR-02, IR-03, and other property areas in the Shipyard Shoreline Open Space District are located within the VOC ARIC. Accordingly, if enclosed structures for other forms of human habitation are proposed in these areas, then the construction and occupancy of such structures would be subject to the restrictions described in [Section 4.1.2](#).

4.1.4. Activity Restrictions Related to Radionuclides at IR-02 and IR-03

The following activities are restricted within the radiological ARIC at Parcel E (i.e., IR-02 and IR-03) unless prior written approval for these activities is granted by the FFA signatories and CDPH:

- a. Excavation below the demarcation layer.
 - i. The demarcation layer is a visual cue and warning to the potential presence of radionuclides to anyone excavating into the soil cover in the radiological ARIC. The demarcation layer will have two components: (1) an orange-colored geotextile and (2) a marking tape with the message "Caution Do Not Dig Below." The geotextile will cover the entire radiological ARIC; the marking tape will be secured on top of the geotextile in a rectangular grid pattern on a 10-foot by 10-foot spacing. Refer to the DBR for details of the demarcation layer and the soil cover in general.

- ii. Any proposed excavation shall be required to be described in a work plan that will include, but not be limited to, a radiological work plan, the identification of a radiological safety specialist, a soil management plan, soil sampling and analysis requirements, and a plan for offsite disposal of any excavated radionuclides by the transferee in accordance with federal and state law. This work plan must also specify appropriate procedures for the proper identification and handling of material potentially presenting an explosive hazard. This work plan must be submitted to and approved in writing by the FFA signatories and CDPH in accordance with procedures and timeframes that are set forth in [Section 6](#) of this LUC RD Report. The integrity of the cover/cap must be restored upon completion of excavation as provided in the OMP for Parcel E. A completion report describing the details of implementation of the work plan, the sampling and analysis (if required), the offsite disposal (if required), and the restoration of the integrity of the cover/cap must be submitted to and approved in writing by the FFA signatories and CDPH in accordance with procedures and timeframes that are set forth in [Section 6](#) of this LUC RD Report.
- b. Installation of water lines, storm drains, or sanitary sewers above the demarcation layer and within the soil cover constructed by the Navy shall be required to be described in a work plan that will identify the procedures to restore the soil cover following excavation and ensure the integrity of the demarcation layer and underlying cap. This work plan must be submitted to and approved in writing by the FFA signatories and CDPH in accordance with procedures and timeframes that are set forth in [Section 6](#) of this LUC RD Report. The soil cover must be restored upon completion of excavation as provided in the OMP for Parcel E. A completion report describing the details of implementation of the work plan must be submitted to and approved in writing by the FFA signatories and CDPH in accordance with procedures and timeframes that are set forth in [Section 6](#) of this LUC RD Report.
- c. Installation of water lines, storm drains, or sanitary sewers in any additional clean imported fill placed on top of the soil cover that the Navy has constructed at Parcel E is not intended to be restricted if the property owner demarcates the interface between the preexisting cover and any new imported soil.

4.2. LEGAL MECHANISMS TO IMPLEMENT IC RESTRICTIONS

The IC performance objectives will be achieved through access controls until the time of conveyance of the property containing Parcel E. The IC restrictions will be implemented through different legal mechanisms that will be established at the time of conveyance of the property containing Parcel E.

Each transfer of fee title from the United States to a non-federal entity will include a description of the residual contamination on the property and the IC restrictions set forth in [Section 4.1](#). Each deed will also contain a reservation of access to the property for the Navy, the FFA signatories, and their respective officials, agents, employees, contractors, and subcontractors for purposes consistent with the Navy IR Program or the FFA. The deed will contain appropriate provisions to ensure that the restrictions continue to run with the land and are enforceable by the Navy. The Navy will meet the statutory requirements of CERCLA Section (§) 120(h)(3) for any transfer of fee title.

The Navy has determined that it will rely on proprietary controls in the form of environmental restrictive covenants, as provided in the “Memorandum of Agreement between the United States Department of the Navy and the California Department of Toxic Substances Control” and attached covenant model (Navy and DTSC 2000) (the “Navy/DTSC MOA”). The following two proprietary legal mechanisms will incorporate and be relied upon to implement the IC restrictions when the property is conveyed to a non-federal entity and shall remain in effect until terminated, as provided below in [Section 5.1](#) (Item 11):

1. Restrictive covenants included in one or more Quitclaim Deeds from the Navy to the property recipient.
2. Restrictive covenants included in one or more CRUPs entered into by the Navy and DTSC, as provided in the Navy/DTSC MOA and consistent with the substantive provisions of California Code of Regulations Title 22 § 67391.1.

The CRUP will incorporate the IC restrictions into environmental restrictive covenants that run with the land and that are enforceable by DTSC and EPA against future transferees and users. The Quitclaim Deed will include the identical IC restrictions in environmental restrictive covenants that run with the land and that will be enforceable by the Navy against future transferees.

IC restrictions will be maintained until concentrations of hazardous substances in soil and groundwater are at such levels as to allow for unrestricted use and exposure. Procedures for terminating ICs are presented in [Section 5.1](#) (Item 11).

In addition to the legal mechanisms described above, a risk management plan, or other appropriate plan, shall be prepared for prior written approval by the FFA signatories, that will set forth certain requirements and protocols used to conduct restricted activities identified in [Section 4.1](#), and will identify the existing regulatory controls (e.g., Article 31 of the San Francisco Health Code and the special subdivision code for HPNS that incorporates requirements of Article 31) used to ensure compliance with the IC restrictions.

Section 5. Remedy Implementation Actions

This section describes the responsibilities of the Navy and the future transferee for implementing IC restrictions. Section 5.1 describes the Navy's responsibilities for implementing IC restrictions both prior to and following transfer of Parcel E. [Section 5.2](#) describes the responsibilities of the future transferee for implementing IC restrictions following transfer of Parcel E. As discussed in [Section 1](#), the OMP, which is included in the RD package ([CES, 2018](#)), describes the implementation actions associated with inspection, maintenance, and repair of the constructed remedy at Parcel E.

5.1. NAVY RESPONSIBILITIES

The Navy is responsible for properly implementing the IC restrictions described in [Section 4.1](#), and IC implementation actions involve inspection, reporting, and enforcement actions. Although the Navy intends for its transferee to accept the procedural responsibilities related to inspecting and reporting on the IC restrictions, the Navy will retain its enforcement authority pursuant to the deed and will retain ultimate responsibility for integrity of the remedy. Should any IC restrictions fail to be properly implemented, the Navy will ensure that appropriate actions are taken to reestablish the protectiveness of the remedy and may initiate legal action to either compel action by a third party or to recover the Navy's costs for mitigating any discovered actions inconsistent with selected restrictions. As discussed in [Section 4.2](#), the Navy will have authority to enforce IC restrictions through the deed, while DTSC (and EPA as a third-party beneficiary) will have authority to enforce IC restrictions through the CRUP.

The Navy will undertake the following actions to ensure that the IC restrictions for Parcel E are properly implemented:

1. **LUC RD Distribution:** Within 30 days of receiving approval of this LUC RD Report from the FFA signatories and CDPH, the Navy will place the LUC RD Report in the information repositories for HPNS. A copy of the LUC RD Report will also be sent to the following interested parties. [Attachment A](#) includes a table with mailing addresses for these entities.
 - a. EPA
 - b. DTSC
 - c. Water Board
 - d. CDPH
 - e. City and County of San Francisco's Office of Community Investment and Infrastructure, which is the Successor Agency to the San Francisco Redevelopment Agency

2. **Site Access:** Each deed will contain a reservation of access to the property for the Navy, the FFA signatories (and CDPH within the radiological ARIC), and their respective officials, agents, employees, contractors, and subcontractors for purposes consistent with the Navy IR Program or the FFA.
3. **Site Inspections:** The Navy will undertake annual site inspections to ensure that all IC restrictions are complied with as long as it owns the property. The future transferee shall undertake continuing annual site inspections to ensure that all IC restrictions are complied with by all future users as provided in [Section 5.2](#) (Item 1).
4. **Compliance Reporting:** Beginning upon completion of remedial action construction and continuing until the effective date of property conveyance, the Navy will provide to the other FFA signatories and CDPH an annual IC compliance monitoring report and certificate for Parcel E consistent with the form attached to this report as [Attachment B](#). The annual IC compliance monitoring report will address, among other things, whether use of the property has conformed with such IC restrictions. In addition, should any deficiencies be found during the annual inspection, the Navy will provide the FFA signatories and CDPH with a separate written explanation to accompany the IC compliance certificate indicating the specific deficiencies found and what efforts or measures have been or will be taken to correct those deficiencies. Copies of the completed and signed IC compliance monitoring report and certificate will be sent annually to the FFA signatories and CDPH. Upon conveyance of fee title for the site to a non-federal entity, the Navy will require, via appropriate provisions to be placed in its deed of conveyance, that the transferee accept the compliance reporting responsibilities, which include responding to violations of IC restrictions as provided below in [Section 5.2](#) and providing the Navy, other FFA signatories, and CDPH an annual IC compliance monitoring report and certificate for Parcel E consistent with the form attached hereto as [Attachment B](#) unless and until all ICs are terminated at the site. If the transferee fails to submit an annual compliance monitoring report as described above to the Navy, the Navy will notify the FFA signatories as soon as practicable. If any of the FFA signatories or CDPH do not receive an annual monitoring report from the transferee, it will notify the Navy as soon as practicable. The Navy will ensure appropriate measures have been taken to verify the status of the IC restrictions and that an annual compliance monitoring report is submitted to the FFA signatories and CDPH within 90 days after the report's due date.
5. **CERCLA 5-Year Reviews:** The Navy will conduct 5-year reviews of the remedy for Parcel E, as required by CERCLA § 121(c) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The Navy may obligate the five-year reviews to another party, which may include the transferee. The 5-year review will evaluate, among other things, implementation and compliance with the IC restrictions to assess whether the remedy is or will be protective of human health and the environment in the future. The annual compliance monitoring reports, which will be prepared in accordance with the requirements described above in Item 4, will be used in preparation of the 5-year review reports to evaluate the effectiveness of the remedy.

6. **Notice of Planned Property Conveyance:** The Navy will provide notice to the FFA signatories and CDPH at least 6 months prior to any transfer or sale of Parcel E by the Navy, so all FFA signatories and CDPH can be involved in discussions to ensure that appropriate provisions are included in the transfer terms or conveyance documents to maintain effective ICs. If it is not possible for the facility to notify the FFA signatories and CDPH at least 6 months prior to any transfer or sale, then the facility will notify them as soon as possible but no later than 45 days prior to the transfer or sale of any property by the Navy subject to ICs. In addition to the land transfer notice and discussion provisions in this LUC RD Report, the Navy further agrees to provide the FFA signatories and CDPH with similar notice, within the same time frames, as to federal-to-federal transfers of property. The Navy will provide a copy of the executed deed of conveyance to the FFA signatories and CDPH.
7. **Opportunity to Review the Text of Intended Deed Restrictions:** Prior to conveyance of the site, the FFA signatories and CDPH will be given reasonable opportunity to review and comment on the applicable language in the Quitclaim Deed and CRUP related to all IC restrictions and associated rights of entry for the FFA signatories and CDPH for IC oversight and enforcement. The provisions in that deed or other enforceable documents will be consistent with the IC restrictions in [Section 4.1](#) of this LUC RD Report.
8. **Notification Should Actions that Interfere with IC Effectiveness be Discovered:** The Navy or transferee will notify the FFA signatories and CDPH as soon as practicable, but no later than 10 working days, after the Navy's or transferee's discovery of any activity that is inconsistent with the IC restrictions or any other action that may interfere with the effectiveness of the ICs. The Navy or transferee will notify the FFA signatories and CDPH regarding how a breach will be addressed or has been addressed as soon as practicable, but no more than 10 working days, after notification of the breach. This reporting requirement does not preclude the Navy from taking immediate action pursuant to its CERCLA authorities to prevent any actual or perceived risks to human health or the environment.
9. **IC Enforcement:** Any activity that is inconsistent with the IC restrictions, or any other action that may interfere with the effectiveness of the ICs, will be addressed by the Navy or designee as soon as practicable, but in no case will the process be initiated later than 60 days after the Navy becomes aware of the breach. If a violation of an IC restriction is identified or documented by the FFA signatories (or CDPH for IC restrictions related to radionuclides within the radiological ARIC), or documented in the annual IC compliance monitoring reports (prepared in accordance with the requirements described above in Item 4), the entity identifying the violation will notify the others within 10 working days of identifying the violation. The FFA signatories and CDPH will then consult to evaluate what, if any, action should be taken; who shall take the action; and when it shall be undertaken. These actions may range from informal resolution with the owner or violator of an IC restriction as described in this LUC RD Report, to the pursuit of legal remedies or enforcement action under the auspices of applicable law or CERCLA. Alternatively, the Navy may choose to exercise its response authorities under CERCLA and seek cost recovery from the person or entity that violates a given IC restriction set forth in the deed transferring the property. Should the Navy become aware that any future owner or user of the property has violated any IC restriction over which a local agency may have independent jurisdiction, the Navy will notify these agencies of the violation and work cooperatively with them to achieve owner or user compliance with the IC restrictions.

DTSC and the Navy, as signatories to the CRUP (and EPA as a third-party beneficiary), will have independent authority to enforce violations of restrictions, requirements, and obligations under the CRUP. While DTSC may agree to consult with other parties before taking any enforcement action under the CRUP, it will not waive its authority to take action as necessary in the event of violations.

10. **Variance from or Removal of Restrictions in Quitclaim Deed and DTSC Covenant to Restrict Use of Property:** Variance from or removal of the IC restrictions may be required, or requested based on changes in site conditions (for example, reduction in the ARIC) during the expected duration for the ICs. When the Navy determines, with FFA signatory (and CDPH within the radiological ARIC) concurrence, that variance from or removal of the IC restrictions are necessary, the modifications will be documented in accordance with procedures consistent with applicable laws and regulations. The Navy shall be responsible for providing pertinent information on the modifications to the interested parties listed in [Section 5.1](#) (Item 1). The Navy and FFA signatories shall determine whether a ROD amendment or explanation of significant differences, or some other procedure consistent with the NCP, is required to support the variance from or removal of the IC restrictions. The Navy shall not modify or terminate IC restrictions (or associated IC implementation actions), or modify land use without prior approval by the FFA signatories and CDPH. The Navy or transferee shall obtain prior concurrence before any anticipated action by the Navy or transferee that may disrupt the effectiveness of the ICs or any action that may alter or negate the need for ICs.
11. **Termination of ICs:** When the Navy determines, with FFA signatory (and CDPH within the radiological ARIC) concurrence, that one or more of the IC restrictions at Parcel E is no longer needed for protection of human health and the environment because the property is remediated to levels of contamination that allow for unrestricted residential use, the Navy shall provide to the current landowner of the property an appropriate release of the restriction(s) in accordance with state law for recordation with the deed pertaining to the site. In addition, DTSC shall provide to the current landowner of the property an appropriate release of the restriction(s) as specified in the CRUP. The Navy will also advise the interested parties listed in [Section 5.1](#) (Item 1) of that action in a timely manner. Termination of some IC restrictions may be possible (for example, activity restrictions related to vapor intrusion); however, most IC restrictions (such as those requiring protection of the durable cover) will continue in perpetuity to provide protection of human health and the environment. IC restrictions will be maintained until concentrations of hazardous substances in soil and groundwater are at such levels as to allow for unrestricted use and exposure.
12. **Survey Plat:** Prior to transfer, the Navy will survey the ARIC at Parcel E to define the legal metes and bounds for inclusion in the property transfer documents. The Navy will forward copies of the survey to the FFA signatories and CDPH and will place a copy in the administrative record.

The requirements described above are consistent with a LUC RD checklist developed by [EPA \(2006\)](#). [Attachment C](#) consists of a site-specific LUC RD checklist that (1) lists the information suggested by EPA and (2) identifies its location in either the ROD or this LUC RD Report.

5.2. TRANSFEEE RESPONSIBILITIES

The Navy will require, via appropriate provisions to be placed in its deed of conveyance, that the transferee accept the responsibilities related to inspecting and reporting on the IC restrictions at Parcel E. Upon the Navy's conveyance of the property, the transferee shall ensure compliance with the following requirements:

1. **Site Inspections:** The transferee will conduct annual physical inspections of the site to confirm continued compliance with all IC restrictions in the Quitclaim Deed and CRUP unless and until all ICs at the site are terminated with approval of the FFA signatories and CDPH.
2. **Compliance Reporting:** The transferee will notify the FFA signatories and CDPH within 10 working days of the transferee's discovery of any actions inconsistent with selected IC restrictions, or any other action that may interfere with the effectiveness of the ICs. The notification will include a written explanation indicating the specific actions inconsistent with selected IC restrictions, or any other action that may interfere with the effectiveness of the ICs, that were found and what efforts or measures have been or will be taken to correct those actions. The transferee will also provide the FFA signatories and CDPH with an annual compliance monitoring report and IC compliance certificate for Parcel E consistent with the form attached to this report as [Attachment B](#) unless and until all ICs are terminated at the site. In addition, should any actions inconsistent with selected IC restrictions, or any other action that may interfere with the effectiveness of the ICs, be discovered during the annual site inspection, the transferee will provide to the FFA signatories and CDPH, along with the required IC compliance monitoring report and certificate, a separate written explanation indicating the specific actions inconsistent with selected IC restrictions, or any other action that may interfere with the effectiveness of the ICs, that were found. The written explanation will also describe what efforts or measures have been or will be taken to correct those actions. The annual compliance monitoring report and certificate shall continue to be sent to the Navy, other FFA signatories, and CDPH annually unless the FFA signatories agree to change this requirement. The need to continue to provide these inspections and certifications on an annual basis will be reevaluated every 5 years by the FFA signatories. Monitoring of the IC restrictions will be conducted annually by the transferee. The monitoring results will be summarized in a report, to which the annual compliance monitoring report and certificate will be attached, and provided to the FFA signatories and CDPH. The annual monitoring reports will be used by the Navy, or other designee, in preparing the 5-year review to evaluate the effectiveness of the remedy. The annual monitoring report, submitted to the FFA signatories and CDPH by the transferee, will evaluate the status of the IC restrictions and how any actions inconsistent with selected IC restrictions, or any other action that may interfere with the effectiveness of the ICs, have been addressed. The annual evaluation will address whether the IC restrictions referenced above were communicated in the deed(s), whether the owners and state and local agencies were notified of the IC restrictions affecting the property, and whether use of the property has conformed with such IC restrictions.

3. **Monitoring Well Protection:** The transferee shall be required to add the monitoring well coordinates to their geographic information systems databases, if any, and applicable maps and drawings to preclude damage to the monitoring well network at Parcel E. The transferee shall identify any potential for the project to impact the IC effectiveness and coordinate with the Navy, other FFA signatories, and CDPH to prevent interference with the IC effectiveness. This process will be reviewed by the Navy and other FFA signatories during the 5-year review to evaluate whether any changes need to be implemented.
4. **Notification of Proposed Changes in Land Use:** Prior to seeking approval from the FFA signatories (and CDPH within the radiological ARIC), the transferee must notify and obtain approval from the Navy of any proposals for a land use change at Parcel E inconsistent with the IC restrictions and assumptions described in the Final ROD.

Section 6. Review of Documents

As described above, the Navy or transferee may prepare various documents during implementation of the IC restrictions. The documents will be subject to review and approval by the Navy and other FFA signatories (and CDPH for the documents that may affect the radiological ARIC).

Draft documents will be subject to a review period of 45 days. Reviewing parties may request an extension of the review period for up to an additional 45 days from the party submitting the document. The party submitting the document will have 45 days to revise the document to address the comments received.

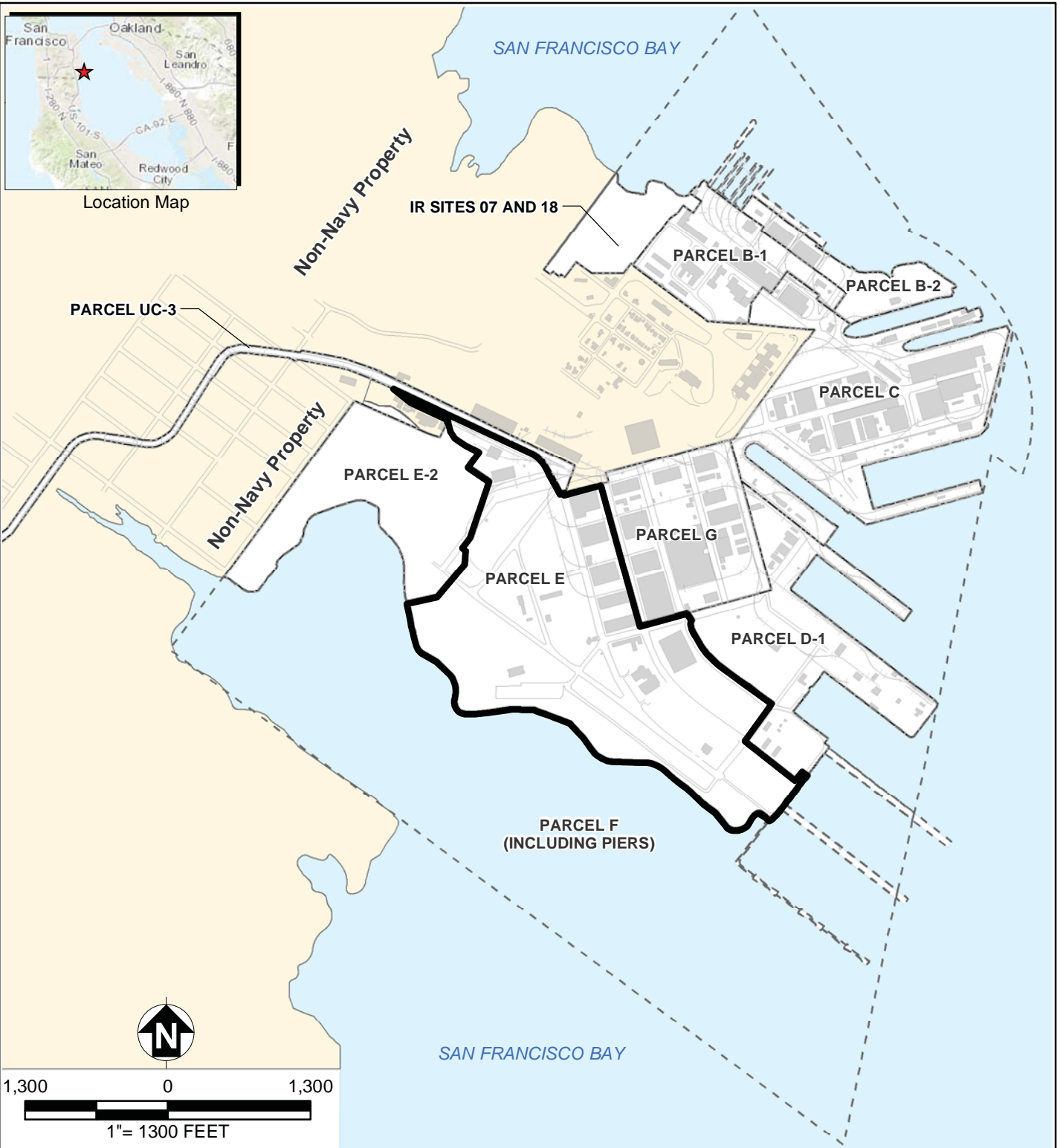
Draft final documents will be subject to a review period of 30 days. Reviewing parties may request an extension of the review period for up to an additional 30 days from the party submitting the document. The party submitting the document will have 45 days to revise the document to address the comments received. Draft final documents will be considered to be final if no comments are received within the 30-day comment period.

All parties preparing or reviewing documents will adhere to the scheduled document preparation and review times to the maximum extent practicable.

Section 7. References

- Construction Engineering Services, LLC, 2018. "Final Remedial Design Package, Parcel E, Hunters Point Naval Shipyard, San Francisco, California." May.
- Department of the Navy, 2013. "Final Record of Decision for Parcel E, Hunters Point Naval Shipyard, San Francisco, California." December.
- Department of the Navy and Department of Toxic Substances Control, 2000. "Memorandum of Agreement Between the United States Department of the Navy and the California [Environmental Protection Agency] Department of Toxic Substances Control." March 10.
- Naval Sea Systems Command, 2004. "Hunters Point Shipyard Final Radiological Historical Assessment." Volume II.
- U.S. Department of Defense, 2004. "Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Record of Decision (ROD) and Post-ROD Policy." From Alex A. Beehler, Assistant Under Secretary of Defense (Environment, Safety, and Occupational Health). January 16.
- U.S. Environmental Protection Agency, 2006. "Sample Federal Facility Land Use Control ROD Checklist with Suggested Language." October.

Figures

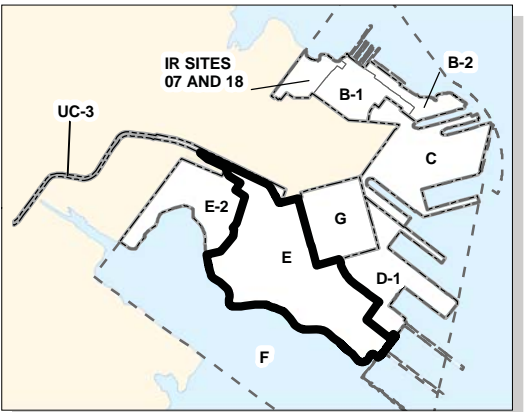
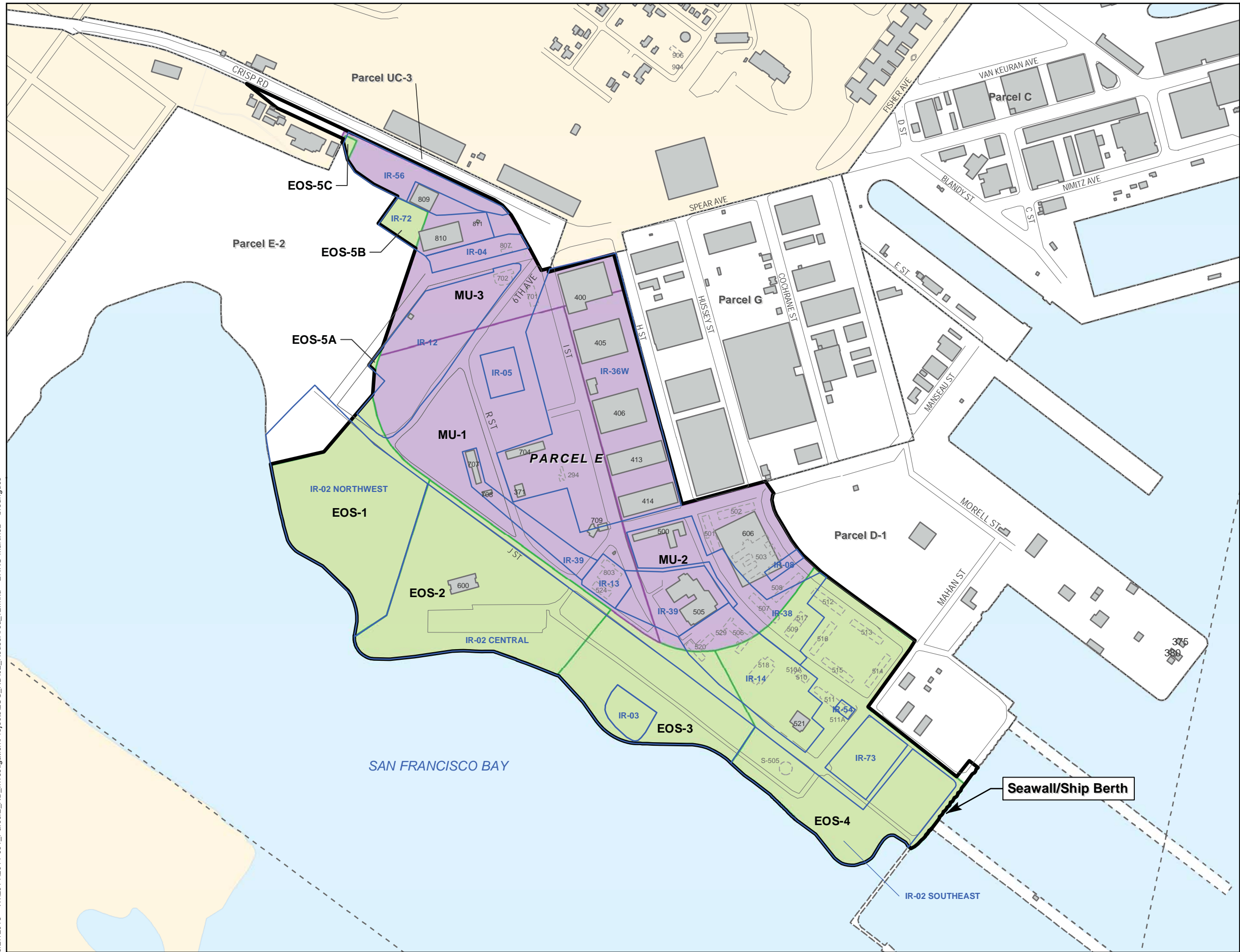


Hunters Point Naval Shipyard, San Francisco, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 1
SITE VICINITY AND LOCATION MAP

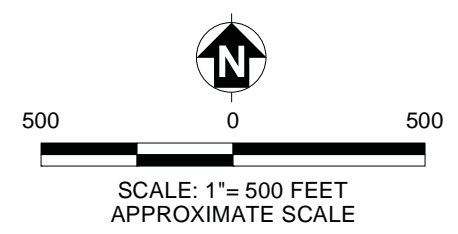
Land Use Control Remedial Design for Parcel E

9/27/2016 W:\2014\2014-091_ParcelE_RD_Investigation\Projects\LUC_RD\02_ReuseArea_v2.mxd ERROG-Martinez brodrigues



Legend

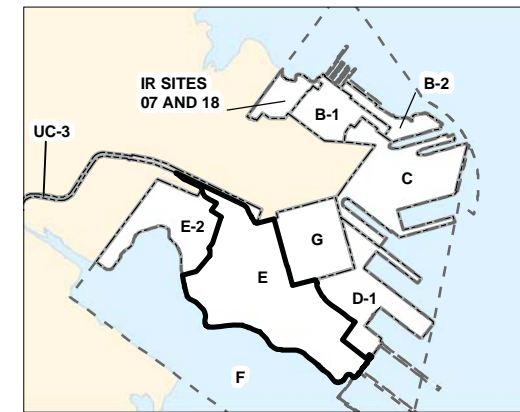
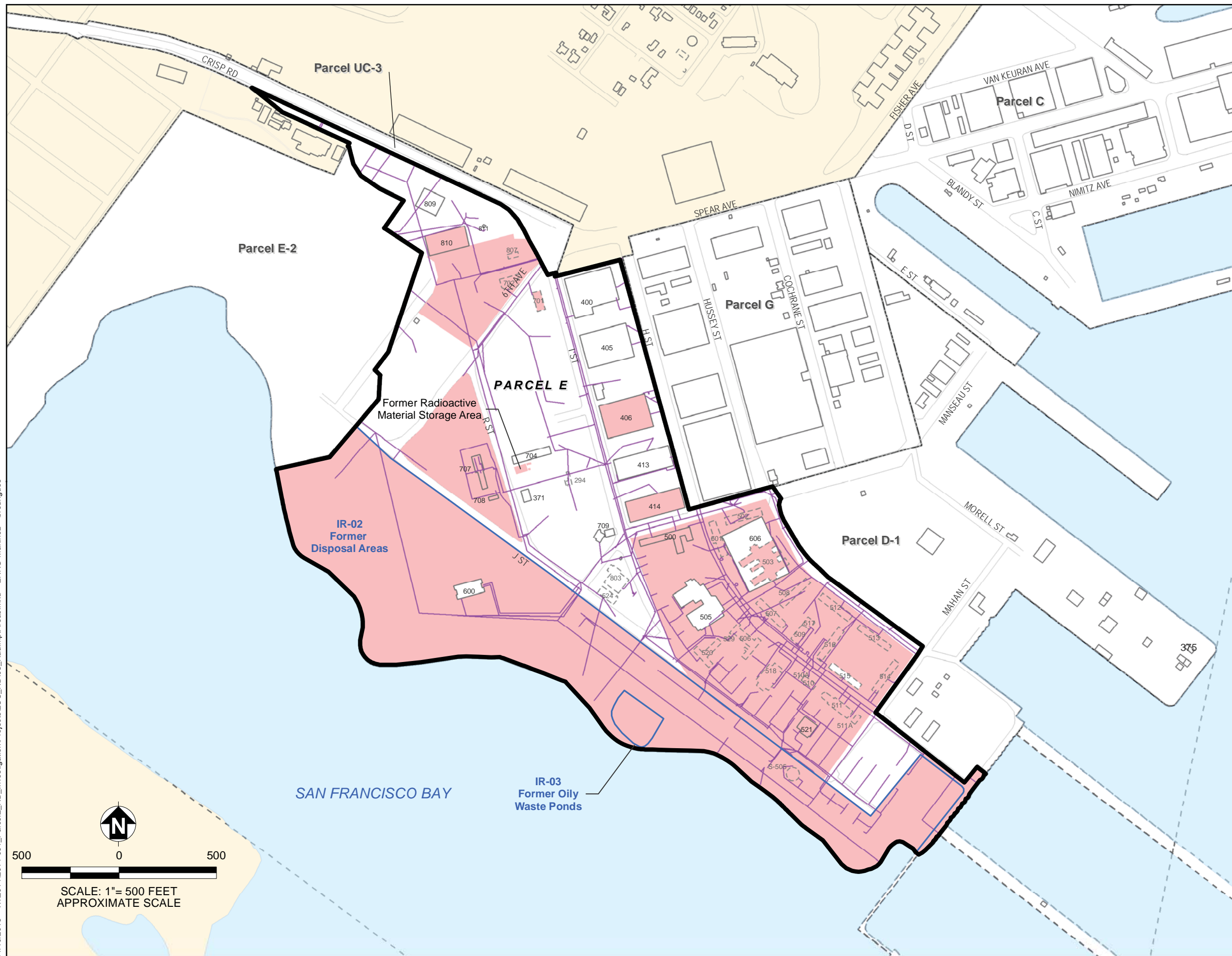
- Parcel E Boundary
- Other HPNS Parcel Boundaries
- Parcel F Boundary
- IR-03 IR Site Boundary
- Multi-Use District
- Open Space
- Existing Building
- Demolished Building
- Road
- Non-Navy Property



Hunters Point Naval Shipyard, San Francisco, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 2
REUSE AREAS,
REDEVELOPMENT BLOCKS,
AND IR SITES AT PARCEL E
Land Use Control Remedial Design for Parcel E

11/10/2016 W:\2014\2014-091_ParcelE_RD_Investigation\Projects\LUC_RD\03_RadiImpAreas.mxd ERRG-Martinez brodrigues



Legend

- Radiologically Impacted Area/Building
- Existing Building *
- Demolished Building
- Parcel E Boundary **
- Other HPNS Parcel Boundaries
- Parcel F Boundary
- IR-02 and IR-03 Boundaries
- Impacted Sanitary Sewer/Storm Drain System
- Road
- Non-Navy Property

* Buildings 505, 600, and 606 are non-impacted buildings within an impacted site; radiological precautions may be required.

** Unshaded areas and buildings are not radiologically impacted, except for buried storm drain and sewer lines

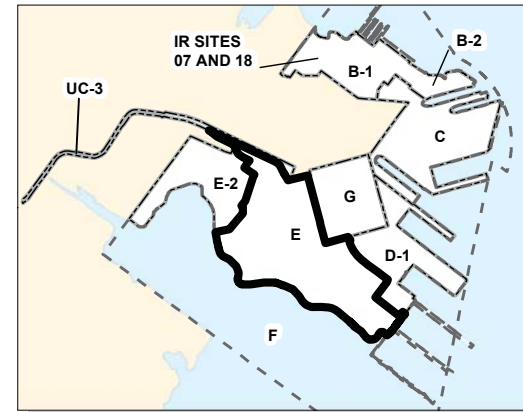
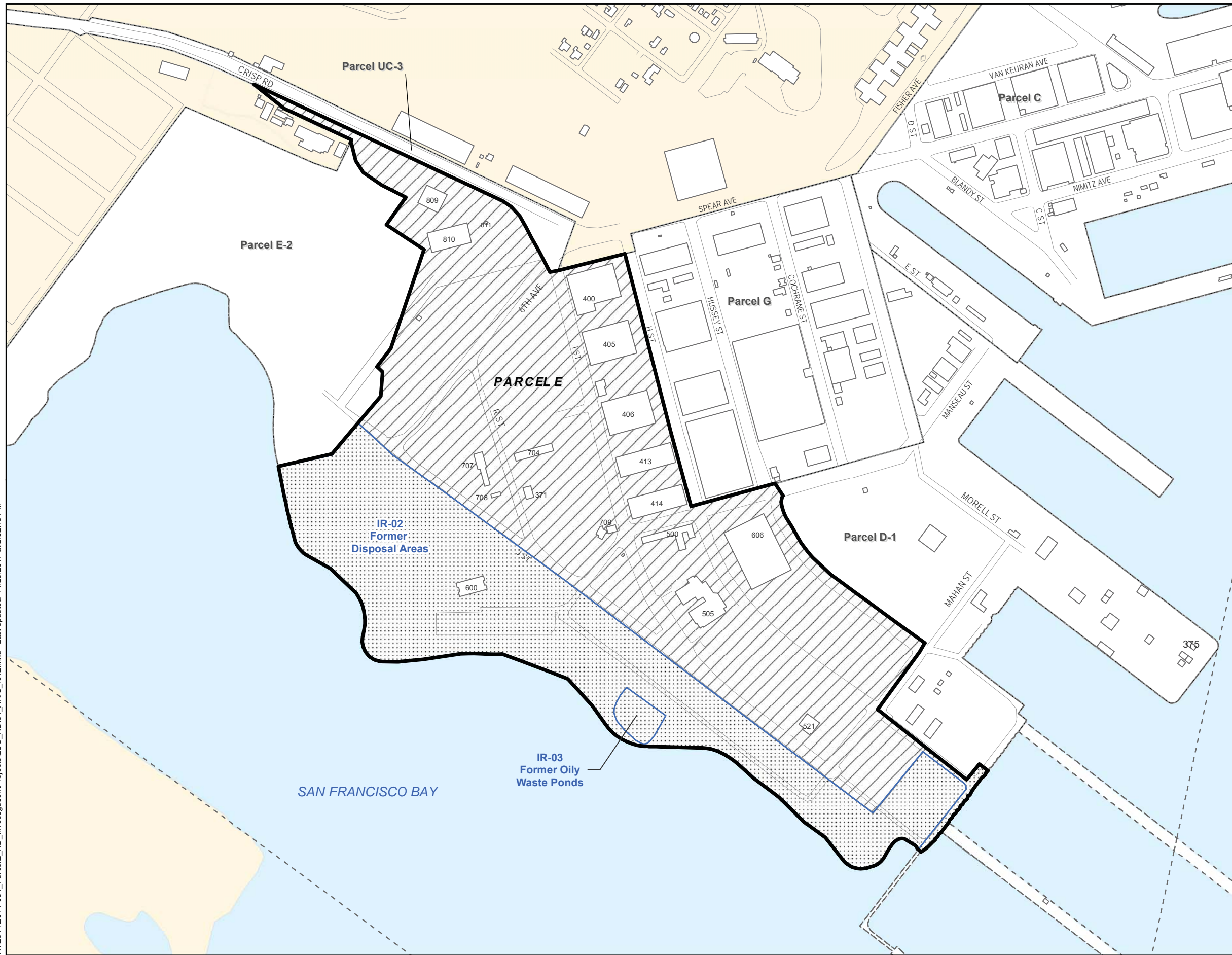
Hunters Point Naval Shipyard, San Francisco, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 3

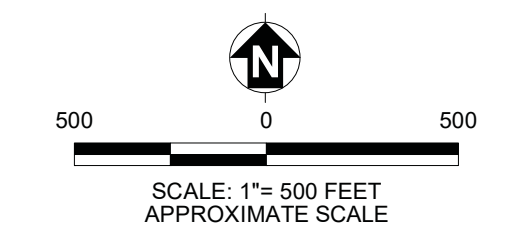
RADIOLOGICALLY IMPACTED AREAS

Land Use Control Remedial Design for Parcel E

W:\2014\2014-091_ParcelE_RD_Investigation\Projects\LUC_RD\04_ARIC_rev2.mxd Last updated: 11/29/2017 at 2:52:13 PM



- Legend**
- Area Requiring Institutional Controls for Nonradioactive Chemicals in Soil, Soil Gas, and Groundwater
 - Area Requiring Institutional Controls for Radionuclides and Nonradioactive Chemicals in Soil, Soil Gas, and Groundwater
 - Existing Building
 - Parcel E Boundary
 - Other HPNS Parcel Boundaries
 - Parcel F Boundary
 - IR-02 and IR-03 Boundaries
 - Road
 - Non-Navy Property



Hunters Point Naval Shipyard, San Francisco, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 4
AREA REQUIRING INSTITUTIONAL CONTROLS

Land Use Control Remedial Design for Parcel E

Attachment A. Interested Parties for Parcel E Land Use Control Remedial Design Report

**Interested Parties for Land Use Control Remedial Design Report
Parcel E, Hunters Point Naval Shipyard, San Francisco, California**

| Agency | Mailing Address | Point of Contact |
|--|--|-------------------|
| U.S. Environmental Protection Agency, Region 9 | Superfund (SFD 8-3) 75 Hawthorne Street San Francisco, CA 94105-3901 | Ms. Judy Huang |
| Department of Toxic Substances Control | 700 Heinz Avenue, Bldg. F Berkeley, CA 94710-2737 | Ms. Juanita Bacey |
| San Francisco Bay Regional Water Quality Control Board | 1515 Clay Street, Suite 1400 Oakland, CA 94612 | Ms. Tina Low |
| California Department of Public Health | Environmental Management Branch 1616 Capitol Avenue, MS 7402 Sacramento, CA 95899-7377 | Dr. Sheetal Singh |
| City and County of San Francisco's Office of Community Investment and Infrastructure | 1 South Van Ness Avenue, Fifth Floor San Francisco, CA 94103 | Ms. Tamsen Drew |

Attachment B. Parcel E IC Compliance Monitoring Report and Annual IC Compliance Certificate

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\\verrg.net\Active\Projects\2014 Projects\2014-091 CES Navy HPNS Parcel E RD\B_Orig\11_Draft_LUC-RD\LUC RD\Draft_LUC-RD.docx

CESJ-2215-0006-0012

Parcel E Institutional Control Compliance Report
Hunters Point Naval Shipyard, San Francisco, California
U.S. EPA I.D. Number: CA1170090087

Inspection and Reporting Entity: _____

This evaluation is the final Navy certification just prior to site conveyance (yes or no)

If for an annual inspection, this evaluation covers the period from _____
through _____

Certification Checklist

| | <u>In</u> <u>Compliance</u> | <u>Non-</u> <u>Compliance</u> | <u>See</u> <u>Comment</u> |
|---|--------------------------------|----------------------------------|------------------------------|
| 1) No use of designated open space areas within Parcel E for a residence, including any mobile home or factory-built housing, constructed or installed for use as residential human habitation, a hospital for humans, a school for persons under 21 years of age, or a daycare facility for children. ^a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) No growing of vegetables, fruits, or any edible items in native soil for human consumption. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3) No groundwater use for any purpose (no evidence of tampering with existing wells or evidence of new wells). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4) No land-disturbing activity ^a (excavation; construction of roads, utilities, or structures; demolition of hardscape; movement of soil from below ground surface to the surface; or activity that facilitates movement of known contaminated groundwater). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5) No installation of new groundwater wells of any type. ^a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6) No altering, disturbing, or removing components of the remedy, including revetment, soil cover/cap, asphalt cover, or groundwater monitoring wells and associated equipment. ^a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7) No altering, disturbing, or removing the foundations of existing enclosed structures. ^a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8) No construction of enclosed structures in the area requiring institutional controls for VOC vapors. ^a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Parcel E Institutional Control Compliance Report (continued)
Hunters Point Naval Shipyard, San Francisco, California
U.S. EPA I.D. Number: CA1170090087

| | <u>In</u> <u>Compliance</u> | <u>Non-</u> <u>Compliance</u> | <u>See</u> <u>Comment</u> |
|---|--------------------------------|----------------------------------|------------------------------|
| 9) No excavation beneath the demarcation layer in the area requiring institutional controls for radionuclides. ^a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10) No installation of water lines, storm drains, or sanitary sewers above the demarcation layer in the area requiring institutional controls for radionuclides. ^a | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11) No removal or damage to security features (such as locks on monitoring wells, site fencing, or signs) or to survey monuments, monitoring equipment, piping or other appurtenances. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12) Notification provided for any unauthorized change in land use. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13) Any violations of these land use and activity restrictions were reported within 10 business days of discovery and an explanation provided of those actions taken or to be taken was provided within 10 days of notification of discovery. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

I, the undersigned, hereby certify that the above-described land use and activity restrictions have been complied with for the period noted. Alternately, any known deficiencies and completed or planned actions to address such deficiencies are described in the attached explanation of deficiencies.

Signature

Date

Notes:

- a These prohibited or restricted activities may be conducted provided that the requirements in the LUC RD Report are followed. If the inspector finds that a prohibited or restricted activity has occurred, the inspector shall check whether the activity was conducted in accordance with approved plans for that activity. Activities that are conducted in accordance with the approved plans will be considered "in compliance." Comments should be attached to the compliance checklist to describe how the requirements in the plans were adhered to. Activities that are not conducted in accordance with the approved plans would be considered "non-compliance."
- Photographs, in addition to other notes and forms, to document the conditions certified in this checklist should be provided.

Send the completed form and all accompanying information to the Navy, EPA, DTSC, Water Board, and CDPH each calendar year.

Annual IC Compliance Certificate
Parcel E
Hunters Point Naval Shipyard, San Francisco, California
U.S. EPA I.D. Number: CA1170090087

I _____ hereby certify that the attached Parcel E Institutional Control Compliance Monitoring Report is complete and accurate. The requirements of LUC RD Report Section 4 have been met. I further certify that a copy of this compliance certificate and the attached Parcel E Institutional Control Compliance Monitoring Report have been sent to the following addressees:

Department of the Navy
Base Realignment and Closure
Program Management Office West
33000 Nixie Way, Bldg. 50
San Diego, CA 92147

U.S. Environmental Protection Agency Region 9
Superfund (SFD 8-3)
75 Hawthorne Street
San Francisco, CA 94105-3901

Department of Toxic Substances Control
700 Heinz Avenue, Bldg. F
Berkeley, CA 94710-2737

San Francisco Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

California Department of Public Health
Environmental Management Branch
1616 Capitol Avenue, MS 7402
Sacramento, CA 95899-7377

Signature

Date

Name

Title

Attachment C. Parcel E Land Use Control Remedial Design Checklist

Land Use Control Remedial Design Checklist
Parcel E, Hunters Point Naval Shipyard, San Francisco, California

| Item Number | Checklist Item ^a | Location in ROD | Location in LUC RD |
|-------------|---|-----------------|--|
| 1 | Prepare map showing areas requiring ICs | Figure 13 | Figure 4 |
| 2 | Document risk exposure assumptions and reasonably anticipated land uses | Section 2.4 | -- |
| 3 | Describe the risks necessitating the ICs | Section 2.5.3 | -- |
| 4 | State the IC performance objectives | Section 2.9.2.5 | Section 4.1 |
| 5 | Describe the ICs and the logic for their selection | Section 2.9.2.5 | Section 4.2 |
| 6 | Specify the duration for implementation of ICs | Section 2.9.2.5 | Sections 1, 4.2, and 5.1 (Item 11) |
| 7 | Specify that the Navy is responsible for implementing, maintaining, reporting on, and enforcing ICs | Section 2.9.2.5 | Section 5.1 |
| 8 | Specify that the Navy may transfer procedural responsibilities to another party but shall retain ultimate responsibility for remedy integrity | Section 2.9.2.5 | Section 5.1 |
| 9 | Refer to a LUC RD that will identify the actions for implementation of ICs | Section 2.9.2.5 | -- |
| 10 | Specify the Navy's commitment to address any situation that may interfere with the effectiveness of ICs | -- | Section 5.1 (Item 8) |
| 11 | Specify the Navy's commitment to notify EPA of and address any situation that may interfere with the effectiveness of ICs | -- | Section 5.1 (Item 8) |
| 12 | Specify that EPA and the state will be notified regarding land use changes | -- | Section 5.1 (Item 2) |
| 13 | Specify that EPA and the state will be notified regarding transfers and federal-to-federal transfers | | Section 5.1 (Item 6) |
| 14 | Specify that EPA and state concurrence must be received prior to modification or termination of ICs | -- | Section 5.1 (Items 10 and 11) |

Land Use Control Remedial Design Checklist *(continued)*
Parcel E, Hunters Point Naval Shipyard, San Francisco, California

| Item Number | Checklist Item ^a | Location in ROD | Location in LUC RD |
|-------------|---|-----------------|--------------------------------------|
| 15 | Specify the Navy's commitment to perform annual inspections and compliance reporting for ICs | -- | Section 5.1 (Item 4) |
| 16 | Provide a comprehensive list of ICs | -- | Section 4.2 |
| 17 | For active facilities, describe the internal procedures for implementing the ICs (e.g., orders, instructions, Base Master Plan) and a commitment by the federal agency to notify EPA in advance of any changes to the internal procedures that would affect the ICs | -- | -- ^b |
| 18 | Provide property transfer language (deed restrictions, lease restrictions, and notices) | -- | Section 4.2 |
| 19 | Ensure that the LUC RD adequately describes pre-transfer ICs, not just post-transfer ICs | -- | Section 4.2 |

Notes:

a This LUC RD checklist is based on a sample checklist, prepared by EPA in October 2006, to guide preparation of ROD and RD documents at federal facilities. Consistent with EPA's sample checklist, Items 1 through 9 are provided in the Final ROD for Parcel E, and Items 10 through 19 are provided in this LUC RD Report.

b Item 17 is not applicable because Hunters Point Naval Shipyard is not an active facility.

EPA = U.S. Environmental Protection Agency

ICs = institutional controls

LUC RD = land use control remedial design

Navy = Department of the Navy

RD = remedial design

ROD = record of decision

-- = not applicable

Sources:

EPA, 2006. "Sample Federal Facility Land Use Control ROD Checklist with Suggested Language." October.

Navy, 2013. "Final Record of Decision for Parcel E, Hunters Point Naval Shipyard, San Francisco, California." December.